

## RAMIE CULTIVATION.

[WRITTEN FOR THE P. C. ADVERTISER.]

It seems particularly opportune at the present time to call the attention of the King and his advisors to this matter, as it is known their desire that avenues of industry may be opened to Hawaiians, the poorer of whom could easily cultivate their small "kuleanas" to pecuniary advantage to themselves, while those of larger estates might reap corresponding benefits.

The attention of the English Government was first called to the great value of Ramie fibre in India, in the year 1853, and from that time down to the present, they have been unremitting in their endeavors to introduce it for use in the various manufactures of their own country. They have encouraged the cultivation of Ramie, by giving various rewards and prizes for the fibre, for machines for cleaning it in the best manner, and for cloth made from the fibre.

The United States have not been behindhand in the interest they have taken in the subject, they have done a great deal in the way of obtaining correct information concerning it. They have also distributed the Ramie seed in various portions, so that now there are a great number of patches under cultivation in the semi-tropical States of America.

Interest in this fibre-producing plant is daily increasing everywhere, and the cultivation of it is meeting with great success in Germany, Belgium, France and Algiers, in Tunis, Portugal, Mexico, Havana, Brazil and in the United States. It has also been tested in the Australian Colonies. With such precedents as these, perhaps it will not appear presumptuous to suggest that the Hawaiian Government, and Legislature now in session appoint a committee to examine into the merits of the project of the Hawaiian R. Co. and see if it would not be a wise and judicious thing for the Government to take a live interest in the proposed undertaking and aid in introducing such a valuable industry as this promises to be, for the great value of the plant has been sufficiently proved, to make its fibre in great demand in other countries where it cannot fail to always find a ready and increasing market.

The obstacles which have hitherto prevented the success of this important enterprise are now removed, and I hope the facts which I here present will speak for themselves in a manner so forcible as to be productive of results that will more than repay the Government for any outlay it may see fit to make, and individually for being thereby induced to engage in an enterprise as promising in its outlook as this which is before us.

I append some extracts from important reports bearing on this subject.

EXTRACT FROM REPORT OF THE BRITISH ASSOCIATION IN 1872—"RAMIE, A NEW TEXTILE PLANT. ITS USES, ETC.

This new textile lately introduced to the agriculturist of the Southern States of America, is a native of Java, and was first brought to Europe for investigation in 1844, when it received the botanical name of "Boehmeria Atrocissima," and from the beauty and strength of its fibre obtained much attention in manufacturing circles. Since that time every encouragement has been given to producers in the East Indies to induce them to cultivate it in sufficient quantities to supply the demand; the result is that a considerable quantity is annually received in Europe and manufactured into fabrics of the finest quality, exceeding linen of the finest texture in strength, beauty and finish, and rivaling silk in lustre. The author then described the advantages of the Ramie over Cotton and other staples now cultivated in the Southern States. He stated that the fibre, when prepared, for the spinner is beautifully white, soft and glossy, closely resembling a fine quality of gloss silk in appearance, that it is stronger than the best flax, and readily receives the most difficult dyes without injury to its strength or lustre."

EXTRACT FROM THE U. S. AGRICULTURAL REPORT OF 1855. "THE CHINA GRASS. ITS HISTORY AND USES. BY GEO. C. SHAEFFER, M. D. U. S. PATENT OFFICE.

"By the praiseworthy exertions of Mr. W. R. Smith of the Public Con-

servatory in Washington, there is now offered an opportunity of ascertaining how far the China Grass, "Boehmeria Nivea," can be successfully cultivated in the United States. There seems to be no difficulty in multiplying the plants, and none in obtaining them in the condition in which they yield the fibre of commerce. This being the case it is proper that some notice of the history of the plant and its products should be furnished for the information of those who may feel disposed to attempt its cultivation:

"China Grass cloth has long been known as an article of commerce, but the plant furnishing the material was only identified about the commencement of this century, by Dr. Roxburgh, whose labors in bringing to notice the fibres of the East are only now beginning to show their effect in commerce. Another indefatigable laborer in the same field, Dr. J. Forbes Royle has recently published a work containing a complete summary of the history of this and other Oriental fibres. The "Boehmeria Nivea," formerly known as "Urtica Nivea," belongs to the nettle family, every subdivision of which abounds in fibrous plants. Dr. Roxburgh described it under the name of "Urtica Tenocissima," from specimens obtained in Sumatra, and subsequently he learned that this was the plant yielding the famous "China Grass." More recently the identity of the Chinese and Indian plants has been determined beyond dispute. From its wide diffusion throughout the East, this plant is known under various names, such as "Cha," or "Telou Ma," in China; "Caloce" in Sumatra; "Ramie" in Malay; and "Rhea" in Assam. Gradually increasing in commercial importance, this product only obtained the notice of the public generally at the London Exhibition of 1851, where it was presented in every condition, from the crude article to the woven fabric, showing a fibre of such beauty and strength that three prize medals were awarded to different persons for specimens in the prepared state. Samples of these now in the collection of the United States Patent Office, I have submitted to examinations the results of which will be given below.

"Of the value of this fibre I can give no better evidence than the statement of Dr. Royle, as imported into England it has sold for £60 to £80, and even for £120 per ton. In some parts of India the plant is only cultivated in small quantities by fishermen for the manufacture of their nets, lines, etc. The use of the fibre for cordage, is not likely to make its cultivation an object in this country, but the great strength which especially fits it for this purpose, may be noticed. Various samples tried against the best Russian hemp, shows that it bears a weight sometimes double, and always more than borne by the hemp. In China, and also where it is employed mainly for making the grass cloth, the softness and strength of which give it a character distinct from that of the fabric of any other fibre.

"Generally three crops are taken a year, at intervals of about two months. The most rapid growth is the second cutting yielding the finest fibre.

"The treatment of the crop varies much, but in general it closely resembles that of hemp, except that the fibres are peeled from the stalks by hand. They are next exposed to the dew at night, and to the sun by day, avoiding rains. In other cases they are soaked in lime water, or even boiled in a slightly alkaline solution. Sometimes again, the fibre is spun or even woven, before it is bleached.

The most successful treatment of the material, after it has reached Europe, consists in steeping it in water at a temperature of 90 deg. F. for twenty-four hours, and then boiling it in an alkaline solution, after which it is well washed in clean water and nearly dried by high pressure steam.

It may be noticed that the fibre which grows wild has also been sent to Europe, but this, as might be expected, is much coarser than the cultivated product.

The specimens of the crude material examined were those above named, obtained from the London exhibition of 1851, and others kindly presented by Joseph Balestier, late Commissioner to Cochinchina, etc., which were also accompanied by the plant itself, obtained by him in Java.

The chief difference in the speci-

mens is the color, which in the Java plant is lighter with a tendency towards green and with somewhat more of a gloss.

The half bleached and full bleached line and tow, as received from London were compared with the best specimens of English, French and Belgium flax from the same exhibition, which last, as usual were unbleached. A very slight examination at once shows the remarkable difference between the two materials. The filaments of the flax line although very fine, showed the ends of components cells, which on repeated handling, separated from each other. The filaments of the China grass on the other hand, although they had been subjected to the process of bleaching showed no such loose ends, and after long continued manipulation still remained smooth, glossy and apparently single celled. To be certain upon this point, specimens, after boiling in an alkaline solution of a strength which would insure the separation of the individual cells, were repeatedly passed back and forth between the fingers and then carefully examined from and to and under the microscope. Every effort was made at all doubtful points by needles, to obtain a separation, if possible. As evidence of the care bestowed upon the examination, it may be stated that from one to two hours were more than once expended upon the scrutiny of a single fibre. The result of this close inspection was the development of the fact that the single cells of the line of China grass are of an extraordinary length; often equal to and sometimes far exceeding that of the longest of which we have any record. Five, six and even seven inches seem to be not unusual lengths. In one case a filament of over ten inches length was severely handled, without showing any signs of being composed of more than one cell; but in this case the microscope was not used. Even the tow of the bleached fibre furnished in abundance, single cells, or fragments three inches or more in length.

"We are now prepared to understand the great strength of the China grass cordage, as in any given length it has fewer breaks of interrupted continuity than any other fibre. The character of the single cell is as follows: In diameter they exceed those of fine flax, of which, however, many are required to make a line of equal length. In cross sections they are irregular and the greatest diameter is found sometimes in one direction, and sometimes in another, somewhat after the manner of cotton. This gives an advantage in spinning, furnishing a better hold of the fibres upon each other than in circular in section.

"It is said that specimens of the Oriental fabric have been examined in which the thread was untwisted, being made up of long filaments, joined end to end by some glue or cement. We know that this is true of the celebrated "pigree," or "piri," a fabric made from the pineapple fibre, and the facts above named show that it may also be true of the China grass. This untwisted thread gives a peculiar transparency to the fabric which cannot be imitated. No attempts have ever been made in Europe, nor in this country, to reproduce such an article which probably requires too much manual labor to be profitable. The full bleached line above mentioned is remarkably glossy and soft, and in some respects not unlike silk in appearance. The whole character of the fabric is so distinct as to preclude any mistake as to the recognition of the article.

"Although we have no mention of the employment of the tow, there can be no doubt of its applicability to the manufacture of an excellent fabric.

"In order to have a long, fine fabric the crop should stand pretty close, and when in small patches it should be surrounded by other plants of similar height, in order to have the whole yield of the same quality, on the exterior plants may be used for propagation, leaving only the tallest to be tried for their fibre."

## FOR SALE.

The Plant heretofore used on the NUVANU PLANTATION.

Consisting of  
Mill, Overshot Iron Water-wheel,  
20 feet diameter, with gearing;  
Coolers, Centrifugals, Turbine Water-wheels, Ox  
Carts, Plows, Farming, Carpenters, Coopers  
and Blacksmith's Tools.

To one planting on shares, and wishing in future to arid his own cane, this affords an unusual opportunity of so doing at very small cost.

Price very low and terms easy.

ALSO FOR SALE!  
Houses and Lots  
At that very desirable and well-known location Nos. 124 and 126 Nuanu Avenue, 10 minutes' walk from Post-office and harbor.  
Terms easy. For particulars apply to  
J. H. WOOD, or  
C. E. WILLIAMS.  
mya-wif

## Advertisements.

KAMEHAMEHA  
DAY!

Official Programme

—OF THE—

## RACES

TO BE HELD AT

## KAPIOLANI PARK

—ON—

WEDNESDAY,

JUNE 11th, 1884

Under the Auspices of the

## Hawaiian Jockey Club.

PRESIDENT, James Campbell.  
VICE PRESIDENT, F. S. Pratt.  
SECRETARY, C. O. Berger.  
TREASURER, Cecil Brown.  
EXECUTIVE COMMITTEE,  
H. A. Widemann, C. H. Judd, Dr. J. S. McGrew.

## 1st.—KING'S CUP.

HURDLE RACE; 2 miles; four hurdles; open for all; catch weights.

## 2nd.—QUEEN'S PURSE.

TROTting RACE; mile heats; best 2 in 3 to harness; free for all.

## 3rd.—KAMEHAMEHA PLATE.

RUNNING RACE; mile heats; best 2 in 3; free for all; weight for age.

## 4th.—QUEEN EMMA PLATE.

HALF MILE DASH; Hawaiian bred horses; catch weights.

## 5th.—PRINCESS' CUP.

TROTting RACE; mile dash to harness; free to all 2 year olds bred in the Kingdom.

## 6th.—RECIPROCITY CUP.

RUNNING RACE; mile heats; best 2 in 3; free for imported horses only; weight for age.

## 7th.—CORONATION PURSE.

TROTting RACE; mile dash to harness; free for all 3 year olds bred in the Kingdom.

## 8th.—LEAH CUP.

MULE RACE; mile dash; free for all; catch weights.

## 9th.—LUNAMAKAAINANA Plate.

RUNNING RACE; mile dash; free for all horses bred in the Kingdom; weight for age.

## 10th.—KOHALA CLUB CUP.

RUNNING RACE; mile heats; best 2 in 3; Hawaiian bred horses; weight for age.

## 11th.—GRAZERS' PLATE.

RUNNING RACE; half mile dash; free for all 2 year olds; catch weights.

## 12th.—AMATEUR CUP.

TROTting RACE; mile dash; owners to drive.

## 13th.—HAWAIIAN JOCKEY CLUB PURSE.

RUNNING RACE; mile dash; free for all 3 year olds bred in the Kingdom.

## 14th.—PONY RACE CUP.

MILE DASH; open to all ponies bred in the Kingdom, not over 14 hands high; catch weights.

## 15th.—KAHUKU CUP.

1/4 MILE DASH; free for all 3 year olds born in the Kingdom.

## 16th.—KAIULANI PLATE.

RUNNING RACE; mile dash; open to all horses bred in the Kingdom that have never run at Kapiolani Park.

## 17th.—EXPRESS CUP.

TROTting RACE; mile dash; free for all express horses.

## FOOT RACE, 200 yards.

All Races to be under the rules of the Hawaiian Jockey Club.

Copies of the Rules and Regulations of the Club can be had by owners of horses upon application to the Secretary. Price 25 cents.

Purses will be published as soon as decided upon.

C. O. BERGER,

my10d&amp;wtf

Secretary.

## EASTERN PINE

Molasses Barrels and Sugar Kegs, Set up or in sheels; also Hoop Iron, 3, 7, 14, 14 in. in width, and 2 inches by 3-16. At

J. H. BRUNS.

Cooperage, No. 19 Fort St., Honolulu, H.I., ap13-d&w3m

Four Point Steel Barb Wire, JUST RECEIVED.

For Sale at Greatly Reduced Prices, —BY—

Ed. Hoffschlaeger &amp; Co.

mh29-1nw

£1 TO £4 PER DAY IS TO BE MADE by persons of either sex, in their own localities, at work for us. New business. All meet with wonderful success. Any one can do the work. Capital not required. We will start you. Outfit worth £1 mailed free. The employment is particularly adapted to the region in which this publication circulates. Boys and girls earn nearly as much as men. Full particulars and instructions mailed free. Now is the time—don't delay, but write to us at once. Address Stinson & Co., Portland, Maine, United States. mh22-wly

## N. F. BURGESS.

CARPENTER & BUILDER, Shop No. 48, King Street, Opposite M. J. Rose's.

ESTIMATES GIVEN ON ALL KINDS of Buildings, when required; Offices and Stores fitted up in the latest Eastern Style.

REPAIRING OF EVERY DESCRIPTION Done in the best possible manner, and at reasonable rates. GARDEN ORNAMENTS of all kinds made to order. Saws filed and set.

N. B.—Personal attention will be given to the moving of all kinds of buildings. Having had experience in the Eastern States, I feel confident I can give satisfaction to the most fastidious. Orders left at my shop or residence will receive prompt attention. Best of references given. Residence, 218 Fort Street, Honolulu.

Orders from the Other Islands solicited. Jan 1-83w

## Shipping.

## Inter-Island

## Steam Navigation Company's



## TIMETABLE.

## Steamer Planter.

BATES, Commander  
Will run regularly for Kona and Kauai.

LEAVES HONOLULU AT 4 P. M.  
Friday, April 4 (Tuesday) May 27  
Tuesday, " 13 (Friday) June 6  
Friday, " 23 (Tuesday) June 17  
Tuesday, May 6 (Friday) June 27  
Friday, May 19 (Tuesday) July 7

Returning, Touching at Maalaea  
Friday, April 11 (Tuesday) June 3  
Tuesday, April 22 (Friday) June 13  
Friday, May 2 (Tuesday) June 24  
Tuesday, May 13 (Friday) July 4  
Friday, May 23 (Tuesday) July 14

ARRIVING AT HONOLULU AT 5 P. M.  
On the out trip, will touch only at the following ports in Kona, Kailua, Keahou, Hookena, and Hoonipia.

## Steamer Iwalani.

CAMERON, Commander  
Leaves Honolulu Every Tuesday, at 5 P. M.

For Nawiliwili, Kona, Waimea and Elele, Kauai. Returning, leaves Nawiliwili every Saturday evening.

## Steamer Jas. Makee.

FREEMAN, Commander  
Leaves Honolulu Every Thursday at 3 P. M.

For Kapaa and Kilauea. Returning leaves Kauai every Tuesday at 4 P. M. and touching at Waialeale both ways.

## Steamer C. R. Bishop

DAVIS, Commander  
Leaves Honolulu Every Tuesday at 4 P. M.

For Kailua, Honolulu and Paahoa. Returning arrives at Honolulu every Saturday morning 6 a. m.